Sociomaterial texts, spaces and devices: questioning ‘digital dualism’ in library and study practices

Lesley Gourlay
Culture, Communication & Media, Institute of Education, University of London, l.gourlay@ioe.ac.uk

Donna M Lanclos
University of North Carolina at Charlotte, dianclos@uncc.edu

Martin Oliver
Culture, Communication & Media, Institute of Education, University of London, m.oliver@ioe.ac.uk

Abstract
Work on students’ study practices posits the digital and the material as separate domains, a conception characterized as 'digital dualism' (Jurgensen 2012). The 'digital' is assumed to be a disembodied realm, decontextualised and free-floating, whereas spaces in the material campus are positioned as prototypically 'traditional' and analogue. Libraries in particular are often characterised as symbolic of pre-digital literacy practices and forms of meaning making, and assumed to be qualitatively different to more recognisably ‘digital’ spaces. We argue that this binary distorts and oversimplifies student engagement, particularly in relation to their creation of and interactions with texts. The library (both physical and digital) is a key site of enquiry into how this engagement unfolds in students’ day-to-day study practices. Although evaluations of library use have tended towards post hoc, causal and quantifiable accounts of user experience, recent ethnographic work has offered a more complex picture instead, recognising the ‘provisional stabilities’ of practice. Instead of working in clearly-defined domains of the digital or the analogue, students create and curate dynamic, mobile and emergent networks which constantly cross between and combine digital and print-based practices, according to purposes and surrounding contexts (Gourlay & Oliver 2013, Kim Wu & Lanclos 2011). Such qualitative research projects reveal the co-presence of digital tools and practices within library spaces, some provided by institutions, and some owned or engaged in by students and faculty independently. We will use two such studies to illustrate these challenges. The first is a year-long investigation of student and faculty textual practices that used multimodal journaling to explore the complex, idiosyncratic and emergent networks students created, adapted and maintained. These incorporated a range of devices, texts, and physical spaces with practices in constant interplay between digital and print-based resources. The second study explored perceptions and use of library spaces (both digital and physical) using data from cognitive mapping exercises, semi-structured interviews and observations across four university libraries. Drawing on sociomaterial perspectives (e.g. Fenwick et al 2011) we argue for a more nuanced understanding of the complex, emergent relationships between the digital and print, the device and user, and the author and text.

Keywords
Library ethnography, digital dualism, sociomateriality, study practices, study spaces.

Introduction
Mainstream work on student study practices tends to posit the digital and the material as separate domains, a conception sometimes characterized as 'digital dualism' (Jurgensen 2012). In these accounts, the ‘digital’ is often assumed to be a somewhat disembodied realm, decontextualised and free-floating (Land 2005). In contrast, spaces in the material campus are frequently positioned as prototypically ‘traditional’ and analogue. Libraries in particular are often characterised as symbolic of pre-digital literacy practices and forms of meaning making, and are assumed to be qualitatively different to more recognisably ‘digital’ spaces. In this paper we will argue that this assumed binary can lead to distortions and oversimplifications in how we view student engagement, particularly in terms of the ways in which students interact with and create texts. As a primary locus of textual
engagement, the library (both physical and digital) is a key site of enquiry into how this engagement unfolds in the detail of day-to-day study practices.

In this paper, we will develop this argument by reviewing critiques of digital dualism, exploring the literature on users’ experiences of library, and then presenting empirical work that focuses on the complex, day-to-day practices that emerge in the practices of students and staff.

Background

This ‘either/or’ logic of ‘digital dualism’ is consistent with the dominant paradigm in library evaluation. Libraries tend typically to be understood and evaluated against quantified models consisting of ‘key performance indicators’ (e.g. Gonçalves et al, 2007). Such indicators differentiate between physical, traditional library spaces and uses of the digital library, building on assumptions about ‘The ‘digital’ nature of digital libraries’ (ibid: 1417), rather than exploring how users’ actual experiences and practices, which may in fact transcend and breach this apparent boundary. These assumptions are so fundamental that authors such as McCray & Gallagher (2001) slip between ‘the digital library’ and ‘digital library systems’ in an apparently unproblematic way, as if the library were nothing other than the digital, technical systems that constitute it.

Such models illustrate the problems that Saunders (2014) raises about the usability of research outputs. Such frameworks of library use may be well suited to quantitative monitoring and benchmarking, but arguably presume a stable point of reference, and as such do not constitute any kind of theory of change. At best, it might be assumed that there is a simplistic causal model underlying the quantification (improving scores causes ‘goodness’), but such models do not identify the mechanisms through which scores might be improved. Even if such approaches manage to flag the shortcomings of a digital library, they would not help address them; there is no scope for the evaluation to ‘talk back’ to the model itself, developing it in the light of new evidence. Consequently, such models tend to be used in ways that are confirmatory rather than evocative, assuming conceptual closure in order to act in a laboratory-like manner, rather than working with the ‘provisional stabilities’ that emerge from studies of practice (Saunders et al, 2005). Drawing on Chelimsky’s (1997) three-part model of evaluation use, the examples above can be understood as using evaluation primarily for monitoring and control, as opposed to the development of knowledge or for capacity building within the organisation.

However, a parallel tradition of library evaluation work has developed that pays greater attention to what users do with digital libraries. Such work may still assume a sharp divide between digital and traditional libraries (possibly allowing for ‘hybrids’), but does at least recognise that user experience, not just system performance, is a possible component in the evaluation of digital libraries (e.g. Saracevic, 2000). Whilst such work often still assumes that users’ experiences are quantifiable (in Saracevic’s case, by specifying user experience in terms of criteria that can be assigned levels), other areas of library research have begun to argue for the value of ethnographically-informed evaluation (e.g. Goodman, 2011), particularly if service improvement (rather than service monitoring) is a priority. The kinds of accounts, generated through ethnographic work – rich descriptions of day-to-day practices – allow the kind of ‘bridging’ between current practice and future possibilities described by Saunders et al (2005):

An evaluation approach that provides captured rehearsals, examples, metaphors, typologies, vignettes, cases, accounts and platforms, ways of working, principles of procedures, routines, i.e. depictions and can both evoke and enable the experience of boundary crossing, provides provisional stability for change; that is to say, it acts as a bridge. (Saunders et al, 2005: 42)

In so doing, this tradition of work has also begun to question the assumed separation between physical and digital libraries, which are woven together in the day-to-day practices of library users. New work drawing on qualitative and ethnographic methodologies has begun to ask critical questions about the apparent simplicity of these assumptions, as studies of textual practice in higher education reveal a more complex picture. The preponderance of digital texts has been found to lead to radically different forms of reading and attention (e.g. Hayles 2012), while meaning-making practices in and out of formal education have become increasingly multimodal, in what Williams (2009) characterises as ‘shimmering literacies’. Levy (2003) has pointed out the fluid nature of both digital and analogue library texts, thus questioning this apparently clear boundary. Recent qualitative work on student practices has shown that instead of working in clearly-defined domains of the digital or the analogue, students create and curate dynamic, mobile and emergent networks which constantly combine
and cross between digital and print-based practices, according to students’ purposes and the surrounding contexts (Gourlay & Oliver 2013). Further, dominant assumptions about the library have also been challenged by ethnographic work (e.g. Kim Wu & Lanclos 2011, Duke & Asher 2012, Foster & Gibbons 2007), and the results of investigations into student and staff motivations to engage with technology (e.g. Connaway, White & Lanclos 2011, Connaway et al 2013). These qualitative research projects reveal the co-presence of digital tools and practices within library spaces, some provided by institutions, and some owned or engaged in by the students and faculty independently. Work developing sociomaterial perspectives on education (e.g. Fenwick et al 2011) has also provided theoretical frameworks which are of utility in understanding such complex areas of practice, in which agency is distributed across a network that includes digital and print literacy practices, a range of nonhuman actors in the form of devices and other artefacts, spaces and temporal frames, in addition to the conventionally-recognised human social actors. We draw on this perspective in order to illustrate the complexities and challenges revealed by qualitative studies of students’ practices.

Methodology

In order to illustrate how the digital and non-digital were intertwined in participants’ day-to-day practices, we will draw on data from two recent studies. The first was a year-long investigation of student and faculty textual practices (Gourlay & Oliver 2013). This study involved a dozen student volunteers, drawn from four groups of students: Postgraduate Certificate in Education (PGCE), taught Masters, distance, and doctoral. Participants were recruited to ensure diversity of gender; age; home/EU or international; and full-time/part-time status. The students were asked to use iPod Touch devices to document their day-to-day practices and interactions with texts and technologies in a range of settings. This multimodal journaling produced drawings, photographs, videos and textual notes; participants assembled these, presented them to the interviewers and discussed them. Participants were encouraged to focus on the ‘messy’ micro-level day-to-day lived activities, networks, and the material/spatial aspects of practice – elements which may be ‘tidied up’ by more conventional forms of data collection such as stand-alone interviews, which rely on self-report and may lead to abstraction (Gourlay 2010). The multimodal nature of the data was also designed to maximize rootedness in the practice, through a focus on images or recordings of everyday objects and processes. The first interview focused on students’ history of using technologies in education. This was followed by a further 2-3 interviews, exploring their experiences of using technologies to support their studies, and finally to exploring in fine detail the day-to-day practices that they undertook when writing assignments, using the library or working with data. The visual data they generated were treated as objects of analysis in their own right, but were also used as stimuli for discussion, grounding the interviews in the specifics of students’ day-to-day sociomaterial practices. Across the course of the interviews, students took increasing responsibility for the curation, presentation and interpretation of the data that they brought with them, providing a further point of reference for interpretation.

In the second study, maps were collected of student and staff ‘learning landscapes’ from four libraries spread over two institutions. The metaphor of ‘landscape’ was adopted to move away from a narrow focus on individual ‘spaces’, which may be viewed in isolation; by contrast, ‘landscape’ was intended to evoke networks of spaces existing in a relationship with each other. These landscapes varied in complexity; some were local and relatively limited, but many others were extensive, involving buildings, people, technology, modes of transportation, institutional spaces, commercial spaces, domestic places, etc. As with the previous study, these maps became the starting point for interviews as well as being a source of visual data in their own right. The mapping and interview process built on prior work involving cognitive maps and photo diaries with students at UNC Charlotte. Both studies received institutional ethical clearance and followed approved procedures for informed consent, including guarantees of anonymity and confidentiality, and the right to opt out at any point.

Findings

The image below was generated by a student to explain the processes through which he wrote an assessed text.
The juxtapositions are striking, with each step containing a mix of digital and physical elements. USB keys mingle with the student bar as consistent elements in the writing process, and texts exist in both digital and print forms, whether finding resources, authoring work or submitting the final piece.

Further interview data suggest that the reasons people locate themselves in particular places have less to do with the ‘absolute’ qualities of a particular place, and more to do with a complex calculus of motives, including not just their intentions at that time, but the surrounding context of their unfolding day.

The map above was generated by a 3rd year student. He has drawn the university on the left, and then broken it down into the various institutional spaces he visits for his academic work (the Library, lecture halls, tutors' offices). These institutional spaces are embedded in a larger network of cafes, domestic spaces, and even (weather permitting) parks.
This member of academic staff has separated his London landscape from his other significant locations, and has included labels for London libraries (the British Library, Senate House, his specialist Library, and in particular the Wellcome Library, marker in red), antiquity societies and museums, the Tube, and his office. He reports in his interview that Cambridge is important due to its connection to his brother, as much as it is for its academic resources. Yale’s Beinecke Library gains additional importance because of New Haven’s pizza. His home is represented by him in an armchair with his laptop and a cat – all of which underscore the widely distributed natures of his practices and the lack of any clear binaries between ‘work’ and ‘home’ or ‘leisure’. The relative lack of specific representations of 'the digital' is also noteworthy. There are some devices depicted (computers, iPods, phones), and occasional representations of services such as Dropbox or Evernote, but in general, the digital appears to permeate all of his networks of practice.

Discussion
The maps provided above might be therefore characterised as ‘post-digital’ maps of practice, where the digital is implicit, and understood to be present or available across all aspects of practice. The data reveal then that ‘learning landscapes’ are not just about physical spaces, but are complicated social networks of people and analogue / digital resources. These distributed, diverse networks of practice are to some extent ‘visible’, and mappable as physical places, their distributed nature made possible to a large extent as a result of digital mediation. However, despite the ubiquity of the digital, it is also worth pointing out that these digital practices are always embedded in the material, with hunger, thirst, the desire for natural light, and other embodied needs emerging throughout the interview data. Switching back and forth between digital and analogue appear in the data to be a key part of students’ learning landscapes. The maps also show the fragmented and unpredictable nature of these networks of practice. Participants’ needs were seen to constantly shift depending on the work they are trying to do, the resources they have available, the time available, and the human networks they need to participate in. The data reveal highly complex, idiosynratic and emergent networks which the participants created, adapted and maintained, consisting of a range of devices, texts, and physical spaces with practices in constant interplay between the digital and the print-based. Throughout these practices, we argue that social actors engage in a form of complex ongoing bricolage, constructing emergent, ephemeral networks of sociomaterial practice which are in contract flux. The concept of text trajectories (Blommaert 2005, Kell 2006) allows us to trace here the movements of texts across and through networks, and to analyse the way meanings shift and change in these transitions. We argue that this analysis serves to undermine notions of a strong dualism between digital and analogue practice in day-to-day study and academic practice, and therefore in typological characterisations of spaces, practice or social actors themselves.

Conclusions
Drawing on sociomaterial perspectives (e.g. Fenwick et al 2011) we will argue for more nuanced understanding of the complex, emergent relationships between the digital and print, the device and user, and the author and text. This type of analysis allows us to form a more nuanced picture of contemporary academic and study practices in the everyday flow of activity, and how that is configured within spaces, but also itself reflexively configures spatial and temporal domains. In doing so we argue that this analysis provides fresh insights into study practices in digital / analogue spaces which challenge ‘commonsense’ binaries of user/device, author / text and practice / context. This type of work, illuminating the complexity of emergent practices, can inform the development of library spaces, services and resources, in addition to research on the more distributed and highly complex nature of contemporary academic / study practices.

References


Available online: http://www.lancaster.ac.uk/fass/events/hecu7/docs/ThinkPieces/saunders.pdf


Lesley Gourlay is Senior Lecturer in Contemporary Literacies and incoming Head of Department for Culture, Communication & Media at the Institute of Education, University of London. She is an executive editor for Teaching in Higher Education. Her research focuses on theorising digital mediation in higher education.

Donna M Lanclos is the Associate Professor for Anthropological Research at the J. Murrey Atkins Library at UNC Charlotte. Her research interests include the nature of information seeking behavior, as well as the relationship of the needs of instructors and learners to the physical and virtual spaces of academic libraries, and in higher education.

Martin Oliver is Professor of Education and Technology in the London Knowledge Lab, a research centre at the Department for Culture, Communication & Media, Institute of Education, University of London. His research interests focus on critical analyses of technology use on higher education.